

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS**

**CONSOLIDATED UNDER
CASE NO. 05-10155 PBS**

Yisel Dean, Independent Administratrix of the)
Estate of Steven Dean, deceased, and on behalf of)
all statutory beneficiaries,)

Plaintiff,)

vs.)

Case No.: 05 CV 10155 PBS

Raytheon Company, a Delaware Corporation,)
Raytheon Aircraft Company, a Kansas)
Corporation, Raytheon Aircraft Credit)
Corporation, a Kansas Corporation, Raytheon)
Airline Aviation Services LLC, a Kansas)
Corporation, and Raytheon Aircraft Parts)
Inventory and Distribution Company LLC, a)
Kansas Corporation)

Defendants.)

Lisa A. Weiler, Administratrix of the Estate of)
Scott A. Knabe, deceased, and on behalf of all)
statutory beneficiaries,)

Plaintiff,)

vs.)

Case No.: 05 CV 10364 PBS

Raytheon Company, a Delaware Corporation,)
Raytheon Aircraft Company, a Kansas)
Corporation, Raytheon Aircraft Credit)
Corporation, a Kansas Corporation, Raytheon)
Airline Aviation Services LLC, a Kansas)
Corporation, and Raytheon Aircraft Parts)
Inventory and Distribution Company LLC, a)
Kansas Corporation)

Defendants.)

**MEMORANDUM OF LAW IN SUPPORT OF PLAINTIFFS' MOTION IN LIMINE TO
PRECLUDE DENIAL OF THE ERROR IN FIGURE 201 OF RAYTHEON'S
MAINTENANCE MANUAL**

COMES NOW Plaintiffs, Yisel Dean and Lisa A. Weiler, by and through their undersigned counsel, submit this memorandum of law in support of their motion in limine to preclude denial of the error in figure 201 of the Raytheon maintenance manual.

As grounds therefore, Plaintiffs state the following:

I. THE DEFENDANTS HAVE ADMITTED THAT THE DEPICTION OF THE TRIM DRUM IS IN ERROR

It is unquestioned that the depiction of the trim drum in figure 201 in the Raytheon maintenance manual was erroneous. Further, plaintiffs contend this depiction that induced the mechanics to route the trim cable in reverse, and thus that this erroneous depiction was a proximate cause of the subject crash. Raytheon should be prohibited from denying that the error existed.

Defendants, through party opponent admissions, have stated that figure 201 was erroneous. For example, in an e-mail correspondence from Dean Thompson who was Raytheon's Director of Safety, Mr. Thompson writes that it has been determined that the 1900 series maintenance manuals are in error with regard to the illustration that depicts the winding of the forward elevator trim tab control cable. (Ex. #1). Additionally, the accident investigation notes taken by Robert Ramey on September 5, 2003, Raytheon's Air Safety Investigator, stated that "According to the illustration, it's backward." (Ex. # 2)

To permit Raytheon to argue that the figure was not error, in the face of their own admissions that it is, would necessarily waste the time of this Court and the jurors, and would be calculated to mislead. Raytheon should be prohibited from denying that such an error existed in its maintenance manual.

CONCLUSION

For all of the foregoing reasons, Plaintiffs respectfully request that this Honorable Court grant their motion.

REQUEST FOR ORAL ARGUMENT

In an effort to assist this Court in its determination of this motion, Plaintiffs respectfully request the opportunity to present oral argument pursuant to local rule 7.1(D).

Respectfully Submitted,

By: /s/ Mary Schiavo
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And

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Dated: January 25, 2007

CERTIFICATE OF SERVICE

I, Mary Schiavo, hereby certify that a true and correct copy of this document(s) filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) and paper copies will be sent to those indicated as non registered participants on January 25, 2007.

/s/ Mary Schiavo

EXHIBIT 1

Doris Waggoner

From: Dean Thompson
Sent: Friday, September 12, 2003 11:46 AM
To: Tim Travis; David Riemer; Don Ristow; Doris Waggoner; Jackie Berger; John Tighe; Mike Scheidt
Subject: UE-40 update

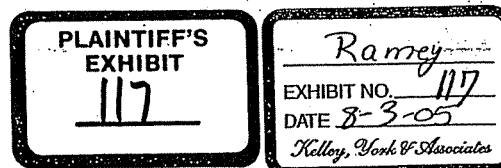
As of this date, examination of the wreckage has revealed no condition of the airplane that would have precluded normal operation. Specifically, no anomalous condition of the elevator trim system has been found. The aft fuselage from the forward edge of the cargo door aft, including the empennage, was recovered as a unit, detached from the remainder of the airplane. That section of wreckage has been examined. The 2 elevator trim tab actuators, the electric elevator trim servo, various pieces of recovered control cables, and the cockpit control pedestal were taken to the NTSB lab in Washington, DC, and were there examined. The actuators and servo are to be sent to RAC for further exam.

An abbreviated team is reconvening next week in Biddeford, Maine (where the wreckage is stored), to retrieve additional pieces and components of the trim system. Those pieces also will be taken to Washington.

It has been determined that the 1900 series maintenance manuals are in error with regard to the illustration that depicts the winding of the forward elevator trim tab control cable around the drum mounted on the left side of the control pedestal. The drawing shows the winding as viewed from the outboard side of the drum (the side toward the pilot). However, for the winding depicted, the drum should be shown from the opposite, inboard side. NTSB and FAA are aware of this discrepancy. A Safety Communique is in process to alert operators of the discrepancy and to recommend they perform the elevator trim operational check that is now in the maintenance manuals. We are also working to concurrently issue a temporary maintenance manual revision for the 1900C to correct a reference in that operational check, and another temporary revision for the 1900D to add a procedure for operational check of elevator trim for those airplanes that are not equipped with electric trim. Also, research is in progress to determine whether a similar safety communiqué is required for the King Air series (essentially the same illustration is used across the King Air series).

For a bit longer term, other manual procedures associated with elevator trim are being criticized by NTSB and FAA because none of the procedures include specific direction to check for proper operation of the trim tabs when such procedures are performed. You may recall that prior to the Hyannis accident, all of the procedures for all of the flight control surfaces were in revision to clarify the procedures, and to correct some incorrect artwork. That work continues; those revisions appear likely to be issued as temporary revisions in the near future.

Dean



9/12/2003

EXHIBIT 2

September 5, 2003

Illustration 27-30-04 that shows the cable wrap on the drum appears to be backward. The hog out faces outboard toward the trim wheel. According to the illustration, it's backward.

Also the cable illustration showing it coming off of the spool and the cable run off of the first three pulleys is oriented looking back toward the nose of the airplane, not from the pilots perspective.

The manual does not reference the mechanic back to the operational check section 27-30-09.

The travel checks in the trim tab rigging section only give tab travels and amounts, not what direction they should go with a given input.

Colgan believes this is the first elevator trim cable they have replaced. Kevin said that this is the first trim cable the show being in stock.

For accident flight Index $21.5 = 282.0$ inches.

Kevin said that they observed two flights where the pilot and the copilot used manual trim and not electric trim until they were in the cruise configuration. Once the were in the cruise configuration, the used the electric trim for small blips.